Inclusion zone: A case study in digital accessibility
Introduction
Introduction

Speakers

James Carr
Cambridge University Press

Julie Elsdon
Cambridge University Press

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Open University

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Aims of the session

This session will explore the approach of a university press and a library in supporting the needs of all researchers, regardless of their ability.

How can a publisher incorporate digital accessibility into everyday processes?

What improvements can be made to online publishing platforms to ensure they are accessible to all researchers?

How does a library help patrons with accessibility requirements?

How do students with disabilities access and read academic research materials, what tools do they use and what challenges do they face?
Digital accessibility
Poll 1
What is digital accessibility?

Web accessibility means that websites, tools and technologies are designed and developed so that everyone can use them – including people with disabilities.

Web accessibility means all people are able to **perceive, understand, navigate, interact and contribute** to the web.

Web accessibility encompasses all disabilities that affect access to the Web including:

- Auditory
- Cognitive
- Neurological
- Physical
- Speech
- Visual
“The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect.”

Tim Berners – Lee
The importance of accessibility

• Accessibility **benefits everyone** by making the Web more usable, e.g. for older people, new users and non-native speakers.

• We can **increase our audience and customer base** – one billion people globally have some form of disability.

• Further **promote the dissemination of knowledge** – an accessible website can help people with disabilities participate more actively in society.

• Ensure we comply with legal obligations, e.g. **EU Web Accessibility Directive** and the **UK Public Sector Bodies (Websites and Mobile Applications) Accessibility Regulations 2018**.

• It’s **morally and ethically** the right thing to do!
### Examples of digital accessibility

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>🌐</td>
<td>Numerous ways to navigate around a webpage (e.g. mouse, keyboard or touch).</td>
</tr>
<tr>
<td>🡲</td>
<td>Hyperlink context indicating where links go to if users click on them.</td>
</tr>
<tr>
<td>📜</td>
<td>Alternative text for screen readers.</td>
</tr>
<tr>
<td>📡</td>
<td>Closed captions on video or audio clips, as well as transcripts.</td>
</tr>
<tr>
<td>🔍</td>
<td>Zoom enabling and text resizing.</td>
</tr>
</tbody>
</table>
Publisher perspective
Current state

Professional expert audit by the Digital Accessibility Centre (DAC).

**ASPIRE audit** (Core ranked 1st/54 platforms) and subsequent improvements to the accessibility statement.

**IAAP certification.**

Attending the annual TechShare Pro conference.

Face-to-face testing to understand how someone using assistive technology accesses academic material online.

**Accessibility champions network.**
Incorporating accessibility into everyday practices

The audit isn’t the end of the process. We are continuing to engrain accessibility into everything we do.

- Training for the product development teams.
- Accessibility checklist used when planning new work.
- Automated and manual testing using assistive technologies.
- Digital Accessibility Champions Network
Next steps

- Re-audit against WCAG 2.1 AA standards in 2020.
- Perform audits on other sites, e.g. Open Engage, HE website.
- Global Accessibility Awareness day expo
- Accessibility user personas
- Expansion of accessibility user testing
- Accessible publishing programme
Platform improvements
Carried out by the Digital Accessibility Centre.

Audited against W3C Web Content Accessibility Guidelines version 2 (WCAG 2.0) – the government recommended standard.

Included:

- Automated testing
- Expert reviews
- Manual testing by disabled testers using assistive technologies, such as JAWS and NVDA screen readers, dragon voice activation software, ZoomText magnification and keyboard only
- Manual testing by users with disabilities who do not require assistive software, such as those with dyslexia, colour blindness or an anxiety/panic disorder.

Report documents which issues are of **high (Level A)**, **medium (Level AA)** and **lower (Level AAA)** priorities.
Examples of improvements

**Heading structure**

Visible headings were present on pages, but not marked as headings within the HTML. This was confusing to users navigating using audio feedback as they rely on headings to move efficiently through page content and understand contextual relationships on the page. Headings on key pages have now been standardised to match the visual presentation.
**CAPTCHA**

CAPTCHA determines whether the user is real or a spam robot. It is used to reduce spam and to increase security. It is notoriously frustrating and inaccessible for most users. It’s generally just an obstacle in the user’s journey, so we took the decision to remove it from the registration form.
Examples of improvements

Colour contrast
Various text elements failed to meet the minimum required contrast ratios.
The colours have now been updated and there is now enough contrast between text and its background so that it can be read by people with moderately low vision (who do not use contrast – enhancing assistive technology).

Access: Past subscription
Contains open access
The password field didn’t inform users of the required form until the entire form had been submitted.

The format requirements are now displayed at all times so that users can ensure their passwords meet the security standards prior to submitting the form.
Images with no alt attribute

Linked blog images had no alt attribute meaning the file name was read out to screen readers.

The links have been removed from the images because the images themselves are decorative and the link is duplicated in the name of the blog post (duplicate links next to each can be annoying to users accessing via a screen reader).

The ‘alt attribute’ for each image has now been set to null so that it is ignored by a screen reader.

**Before:**

**After:**
Examples of improvements

**Modals/Pop ups**

Changes have been made to the modals and pop ups so that they can now be operated by users who rely on audio feedback or use only a keyboard to navigate.

01 Close button can now be tabbed to by keyboard.

02 Button renamed (previously: 'Change', now: 'Change citation format') to provide context.

03 Copy to clipboard now announced by screen reader.
Library perspective
Poll 2
Accessibility at The Open University Library

Beverley Delaney: E-Content Advisor at The Open University Library, Accessibility Operational Lead
The Open University

- One of the largest universities in Europe with 168,000+ students
- 4 Nation University
- Open admissions policy
- Open Programme UG and PG
- 23% of OU UK undergraduates live in the 25% most deprived areas
- 32% of students had one A level or a lower qualification at entry
- 27,237 students with disabilities and 1,400 students in secure environments studied with us in 2018/19
Disabled Students at the OU (March 2020)

- Mental health, 15462, 30%
- Unseen, 6338, 12%
- Mobility, 4508, 9%
- Fatigue/pain, 7160, 14%
- Other, 3065, 6%
- Speech, 466, 1%
- Manual skills, 1932, 4%
- Learning difficulty, 6877, 14%
- Autism, 1916, 4%
- Hearing, 1386, 3%
- Sight, 1529, 3%
OU Courses

• Online and blended learning
• Module websites, digital activities, books
• Tutors, tutor groups and tutorials
• Social media communities
• Academics move on to produce next module
Proactive accessibility in the Library

- Academic Liaison Librarian supports module team in choosing accessible content or making reasonable adjustments
- Library Authoring team write online accessible skills activities
- Librarians deliver accessible online training
- Test accessibility of databases (what we test for)
- Database accessibility tips for users
Support available to disabled students

Our disabled users have access to the following services

1. Helpdesk – email, phone, 24/7 web chat
2. Supported literature search
3. SensusAccess – automated conversion service
4. Converting inaccessible resources found during independent study
5. RNIB Bookshare Pilot
6. OU Live Training sessions and Transcripts
7. Database Accessibility tips
Working with Publishers & Suppliers

- Proactive/Reactive Accessibility
- Trials and new resources
- Test resources
- Identify and rank the issues
- Share the findings report with the supplier
- Demonstrate the problems to the publisher

- Publisher Library Advisory Boards
- SHERIF
- HEIs together with JISC
Student perspective
About me

- Khadija Raza
- Cone Rod Dystrophy (Retinal Degeneration)
- Severely Sight Impaired at 16
- RNIB Campaigner
Secondary School Student

- Deteriorating Condition + Changing Accessibility Solutions = Challenging
- Example Reading:
  - Regular Textbook
  - A3 Copies
  - Magnifiers
  - iPad zoom
  - Assistant Reading
  - Screen Reader
- Became a Apple Voiceover Screen Reader User
University Student:

- Educational Step Up + Living By Myself + No-one Guiding Me = More Challenging
- Library Welcome Talk - No Disability Focus
- Library Accessible Books- Took too Long
- Library / Publishers Websites - Inaccessible
- Digital Book/ Journal Articles – Inaccessible
- Felt: Alone, Time Wasted, Anxious, Less Informed, Grades Suffer, Frustrated
My Advice:

- **Raise Student’s Awareness** on your services

- **Websites:**
  - Simplified
  - High Contrast
  - Readable Font
  - Buttons and Pictures labelled
  - Proper Headings etc.

- **Digital Content:**
  - Screen Reader Friendly
  - Pictures,
  - Tables
  - Graphs

- **Get User Feedback** and Implement it

- **Try Accessibility Tools** Yourself
Concluding Thoughts:

- Technology/ Digital allowed me to complete my studies.

- More Work needs to be done - No more disabled drop-outs
Screen reader demo
Thank you!